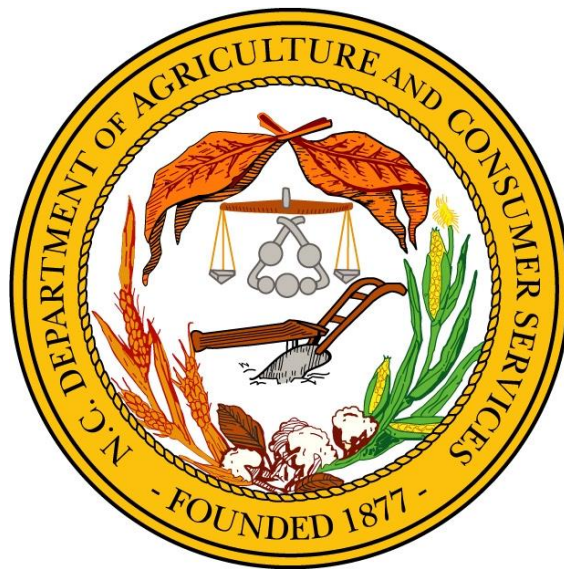# NC Dept. of Agriculture and Consumer Services

Information Technology Plan

For 2014-2016 Biennium

By

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Prepared: September 30, 2014

Contents

1 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to provide agency data for the Information Technology Plan for the 2014-2016 Biennium to the North Carolina State Chief Information Officer (SCIO) as required by G.S. 147-33.72B. The statute mandates that each agency submit a technology plan to the SCIO by October 1 of each even-numbered year. The State Information Technology Plan (Plan) is required to cover a five-year time period. To properly inform the Plan, agency plans are also required to cover a five-year time period.

1.2 ROADMAP

Goal	Objective	Initiative	Description	Funding Mechanism
Goal 1 – Online payment for Department's License System pursuant to Session Law 2011-0145 HB 200	Objective 1.1 – allow citizens to apply, renew and pay for their license online	Initiative 1.1.1	Nursery Inspections	Grant/appropriations
		Initiative 1.1.2	Expansion to other Divisions	appropriations
		Initiative 1.1.3	Create a "community" of expertise among other agencies who use the enterprise approach.	
Goal 2 – Redesign NCDA & CS website in SharePoint	Objective 2.1 – make the Department's website more user-friendly and dynamic, improving its ability to deliver information to visitors.	Initiative 2.1.1	Follow the State's lead for website look and feel	appropriations
		Initiative 2.1.2	Content management system to improve site maintenance and update information.	appropriations
Goal 3 – Create a suite of applications for the Forest Service	Objective 3.1 – create a Forest Service Accomplishment Portal	Initiative 3.1.1	Develop a "one Stop" location for NC Forest Service employees to record their program's accomplishments.	appropriations

Goal	Objective	Initiative	Description	Funding Mechanism
Goal 4 – Grants Management	Objective 4.1 – recognize the need across all divisions for a new web-based grant management system	Initiative 4.1.1	Provide a SaaS (Software as a Service) solution for managing grants in the divisions.	appropriations
		Initiative 4.1.2	Expansion to the Forest Service	appropriations
Goal 5 – Stimulate the Department's utilization of geospatial technology to assure GIS needs of the Department, State and the public are met in a cost-effective manner	Objective 5.1 - Identify areas where GIS technology can streamline the Department's operations. Provide data, software, training, mapping and technical support to NCDA&CS Geographic Information System (GIS) users.	Initiative 5.1.1	Provide the Department's GIS users with data, data creation services, technical support, web development and other support as needed. Host all server or enterprise based software (and base data) in one central location.	appropriations
		Initiative 5.1.2	Create a web-based application for the Forest Service's Community Wildfire Protection Program that is geospatially enabled. Thus modernizing the existing databases and reducing duplicative common data.	Mostly appropriations with a small amount of Federal grant funding.
		Initiative 5.1.3	Create web based mapping applications like the forest management plan map maker that will reduce the need for more expensive desktop GIS software	appropriations

Goal	Objective	Initiative	Description	Funding Mechanism
Goal	Objective	Initiative	Description	Funding Mechanism
Goal 5 – continued Stimulate the Department's utilization of geospatial technology to assure GIS needs of the Department, State and the public are met in a cost-effective manner	Objective 5.2 - Identify areas where GIS technology can improve the overall services provided to the Citizens of North Carolina. Provide public facing mapping websites to share internal information with the public and industry partners	Initiative 5.2.1	Maintain and update Web Map Service (WMS) and other web map services to the GIS Community and the general public. Make all services discoverable on NC One Map.	appropriations
		Initiative 5.2.2	Assure that all web sites are up-to-date, current with a responsive design.	appropriations
		Initiative 5.2.3	Create web based mapping applications like the pre-harvest planning tool to give private sector loggers and forest service employees quick, user friendly access to best management practices and soil characteristics. Thus ensuring the lowest harvesting cost while protecting the environment.	Funded with USDA NFS Federal Grant dollars

Goal	Objective	Initiative	Description	Funding Mechanism
Goal 5 – continued Stimulate the Department's utilization of geospatial technology to assure GIS needs of the Department, State and the public are met in a cost-effective manner	Objective 5.2 – continued Identify areas where GIS technology can improve the overall services provided to the Citizens of North Carolina. Provide public facing mapping websites to share internal information with the public and industry partners	Initiative 5.2.5	Assure that facilities that the Department regulates, including liquefied propane gas and food manufacturers are mapped with extremely high accurate coordinates. Communicate with private industry when their facilities are likely to be impacted by hurricanes or other natural disasters.	Very limited staff time is required to complete this initiative
		Initiative 5.2.6	Host and maintain a web based application for tracking Food Safety in NC. Create an electronic inspection form and make it mobile friendly. Spatially enable with accurate coordinates to allow for quick response to food recalls and impacts from large scale power outages and flooding.	Funded mainly with Federal grant dollars from FDA
	Objective 5.3 - Work collaboratively with the State Government GIS Community to assist all other levels of Government Geographic	Initiative 5.3.1	Participate within the Geographic Information Coordinating Council (GICC) framework to share resources and technical knowledge where possible.	appropriations

Goal	Objective	Initiative	Description	Funding Mechanism
		Initiative 5.3.2	Serve in a leadership role on the Technical Advisory Committee and State Government Users Group to assure NCDA&CS users have the latest data, tools and resources. Reduce duplicative efforts and assure local governments benefit from a shared technical knowledge base.	appropriations

2   NCDA & CS IT PLAN EXECUTIVE SUMMARY

The N.C. Department of Agriculture and Consumer Services' divisions have responsibilities in regulatory and service areas covering agronomy; animal health; weights and measures; gas and oil inspections; crop and livestock statistics, USDA commodity distribution, state farm operations; food, drug and cosmetic testing for purity; agricultural marketing and promotion, operation of the NC State Fair and the NC Mountain State Fair; four state farmers markets; research station operations, seed and fertilizer inspection, nursery and plant pest eradication activities; regulation of the structural pest control industry; agricultural environmental issues; soil and water conservation; forest management and protection; state and federal legislation and agricultural economic analysis.

This Information Technology Strategic Plan provides the guidance and framework to achieve NCDA & CS technology goals along with a technology vision that directly supports the Agency's Business Plan. The vision is detailed as a series of principles defining how technology is used within the Agency and establishes a common understanding of the role Information Technology plays in meeting the business needs of the Agency. The plan establishes and documents the framework within which well-informed Information Technology decisions can be made.

This plan describes our technology goals both current and future. It also describes the organizational structure of the Department's Information Technology.

This multi-year Strategic Technology Plan is a living document that will be reviewed and updated.   An Annual Tactical Plan that specifically addresses technology activities will be developed each year and approved by the Leadership Team – whose guidance and leadership will determine the path technology used throughout the NCDA & CS will follow.

3 GUIDANCE

3.1 SCIO GUIDANCE

IT Vision

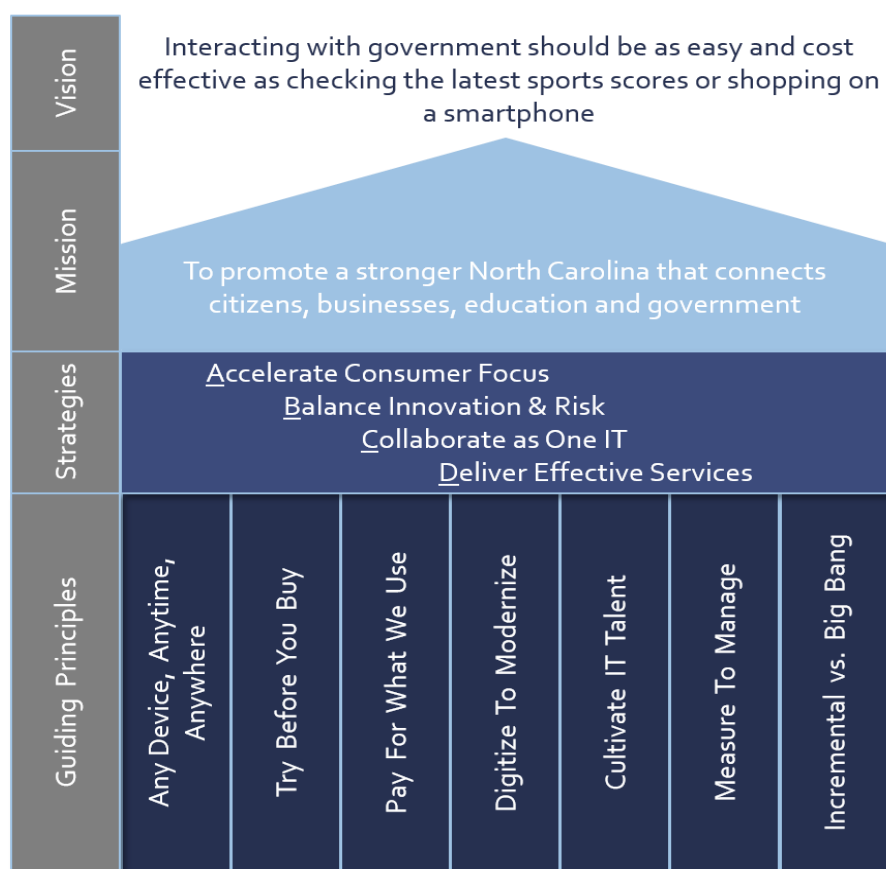Making government services more accessible and efficient for all consumers is the foundation of the One IT strategy.

IT Mission

Promoting a stronger North Carolina that connects citizens, businesses, education, and government is the mission of IT.

IT Strategies

Strategies focus organizations to achieve complicated goals or objectives. With an eye to the future while sustaining current foundational requirements, the SCIO has adopted the "ABC" strategy to fix and modernize IT.

	Vision	Interacting with government should be as easy and cost effective as checking the latest sports scores or shopping on a smartphone
	Mission	To promote a stronger North Carolina that connects citizens, businesses, education and government
	Strategies	Accelerate Consumer Focus / Balance Innovation & Risk / Collaborate as One IT / Deliver Effective Services
	Guiding Principles	Any Device, Anytime, Anywhere / Try Before You Buy / Pay For What We Use / Digitize To Modernize / Cultivate IT Talent / Measure To Manage / Incremental vs. Big Bang

IT Vision, Mission, and Strategies

	Strategy	Intended to:
A.	Accelerate Consumer Focus	Embrace the consumerization of IT with a focus on the requirements of the consumer of technology
B.	Balance Innovation and Risk	Try newer technologies while managing enterprise risk
C.	Collaborate as One IT	Work as a team to accomplish our mission
D.	Deliver Effective Operations	Focus on achieving business outcomes through effective and efficient technology delivery

In addition to the seven guiding principles outlined above, the SCIO's Cabinet Unite IT Strategy focuses strongly on collaborative IT governance, big data and analytics (to include, but not limited to, work with GDAC and GIS), IT operations, and innovation.

The table below outlines the six IT business capabilities and five IT organizational capabilities highlighted in the Cabinet Unite IT Strategy.

Business Capabilities	Organizational Capabilities
Digital Focus	Collaborative IT Governance
Big Data and Analytics	Strategic Planning and Architecture
Enterprise Resource Planning	IT Program and Project Management
Application and Service Modernization	Innovation
Risk Management and Security	Talent Development and Management
IT Operations	

Please consider these areas, along with the seven guiding principles and your agency-specific goals and objectives when creating agency IT goals and objectives.

4 NCDA & CS VISION, MISSION, VALUES AND GOALS

4.1 MISSION

To provide services that promote and improve agriculture, agribusiness and forests; protect consumers and businesses; and conserve farmland and natural resources for the prosperity of all North Carolinians.

4.2 AGENCY GOALS

Promote and enhance the production and marketing of NC Agricultural Products

Efficiently distribute USDA commodities and local foods to partnering institutions, non-profit organizations and school systems

Promote the sound stewardship of working lands and natural resources

Protect, manage, and promote the Forests

Assure compliance with regulatory programs

Be responsive to consumers

Protect consumers, the integrity of our food supply and the environment

Create positive entertainment experiences at our Farmers Markets, Ag Centers and Fairs

Foster economic opportunities at our Farmers Markets and Ag Centers

5 NCDA & CS IT VISION, MISSION, AND VALUES

5.1 IT MISSION

The Information Technology System Services mission is to offer the best possible IT solutions to our users as efficiently as we can. This is to include data security, integrity, and availability. We strive for this not only for our agency, but for the consumers of North Carolina.

5.2 IT VALUES

Our customers are our job!

Work Smart

Teamwork

Be a forward thinker

NCDA & CS IT Goals, Objectives and Initiatives

6.1 Goal 1-Online Payment for License System

Our current license system is 15 years old.   It is time to retire the current system and provide a more modern approach for issuing the 80,000 plus licenses in the State of NC regulated by the North Carolina Department of Agriculture (NCDA & CS).   In order to meet the desire for citizens to update their license system online and pay for their license fees online, we have moved to a statewide enterprise approach.

6.1.1 Objective 1-Allow license business owners to apply for a license, renew a license and make payment for their license

There is an immediate need to improve efficiency of the day-to-day IT operations and allow for citizens to enhance their customer experience with NCDA & CS.

6.1.1.1 Initiative 1 – Rollout the State's enterprise initiative, ECLIPS, to our Plant Protection Specialists who inspect over 10,000 acres of nursery stock each year.   With this approach, we will streamline processing, citizen service and reporting capabilities.

6.1.1.2 Initiative 2 – Plan for future deployments to other divisions. We plan to implement a new license type ourselves without vendor help.   In this way, we will learn how to implement the system and hopefully reduce our costs when implementing other license types.

6.1.1.3 Initiative 3 – Create a "community" of expertise among Agencies who use the statewide enterprise approach and become less dependent on the Vendor. Work in conjunction with DENR's staff to provide expertise to other agencies as well as to each other.

6.2 Goal 2-Redesign of NCDA & CS website in SharePoint

The Department has had its current website design since 2007.   We want the website to be a responsive website.   In the Department's Strategic Plan every Division expressed a need to update and enhance their presence on the Department's website.

6.2.1 Objective 1- make the Department's website more user-friendly and dynamic, improving its ability to deliver information to visitors.

There is an immediate need to improve efficiency of the day-to-day IT operations and allow for citizens to enhance their customer experience with NCDA & CS.

6.2.1.1   Initiative 1 – Work with the Department's PIO to gather requirements for a new public website and the Office of Information Technology (OITS) for direction for look and feel.

6.2.1.1   Initiative 2 – Make the website responsive so it can be viewed on any device.

6.2.1.2   Initiative 3 – Make the information relevant and timely. We will use SharePoint as a content management system to allow personnel in each division make updates to their information.

6.3   Goal 3-Create a Portal for the Forest Service

The IT Division for the Department of Agriculture is developing a one-stop shop for Forest Service IT needs because the NC Forest Service has many Access databases, a straggler program left in the Department of Environmental and Natural Resources (DENR) and new legislation enacted this year for Forestry Management Plans.

6.4   Goal 4 – Department Grants System

The Department has an in-house grants management system (Web-GT).   It was in place before the Department had a Grants Management Office.   It was also in place before NC Forest Service and Soil and Water came to join the Department.

6.5   Goal 5 – Stimulate the Department's Utilization of Geospatial Technology

Stimulate the Department's utilization of geospatial technology to assure GIS needs of the Department, State and the public are met in a cost-effective manner.

6.5.1 Objective 1- Identify areas where GIS technology can streamline the Department's operations.   Provide data, software, training, mapping and technical support to NCDA&CS Geographic Information System (GIS) users.

6.5.1.1   Initiative 1 – Provide the Department's GIS users with data, data creation services, technical support, web development and other support as needed. Host all server or enterprise based software (and base data) in one central location.

6.5.1.2   Initiative 2 – Create a web based application for the NC Forest Service's Community Wildfire Protection Program that is geospatially enabled.   Thus modernizing the existing databases and reducing duplicative common data.

6.5.1.3   Initiative 3 – Create web based mapping applications like the forest management plan map maker that will reduce the need for more expensive desktop GIS software.

6.5.2 Objective 2- Improve the Citizen's experience

6.5.2.1 *Initiative 1 - Maintain and update WMS and other web map services to the GIS Community and the general public.   Make all services discoverable on NC One Map.*

6.5.2.2 *Initiative 2 - Assure that all web sites are up-to-date, current with a responsive design.*

6.5.2.3 *Initiative 3 - Create web based mapping applications like the pre-harvest planning tool to give private sector loggers and forest service employees quick, user friendly access to best management practices and soil characteristics; thus ensuring the lowest harvesting cost while protecting the environment.*

6.5.2.4 *Initiative 4 - Assure that facilities that the Department regulates, including liquefied propane gas and food manufacturers are mapped with extremely high accurate coordinates. Communicate with private industry when their facilities are likely to be impacted by hurricanes or other natural disasters.*

6.5.2.5 *Initiative 6 - Host and maintain a web based application for tracking Food Safety in NC. Create an electronic inspection form and make it mobile friendly. Spatially enable with accurate coordinates to allow for quick response to food recalls and impacts from large scale power outages and flooding.*
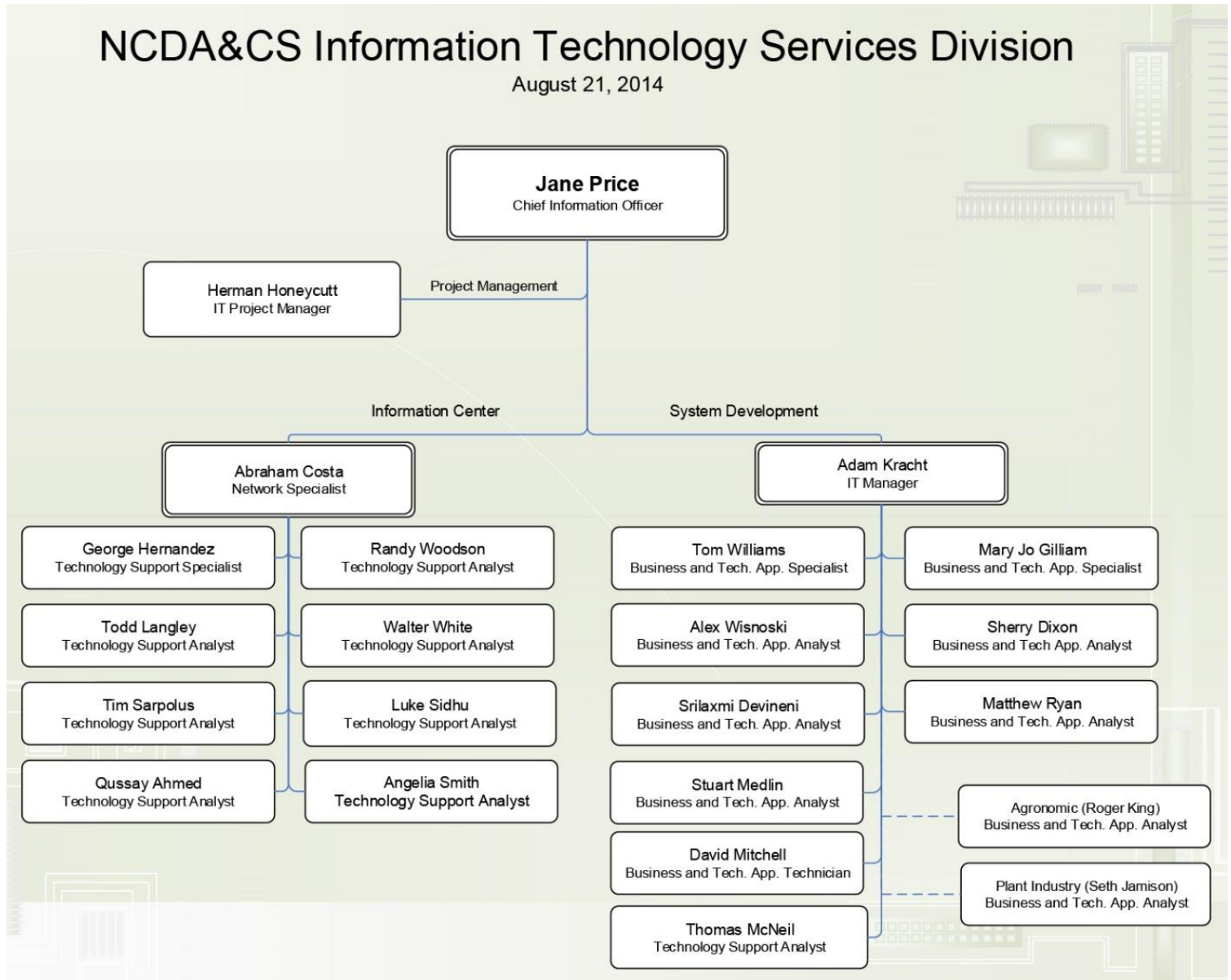
6.5.3 Objective 3- Work collaboratively with the State Government GIS Community to assist all Government Agencies

6.5.3.1 *Initiative 1 - Participate within the Geographic Information Coordinating Council (GICC) framework to share resources and technical knowledge where possible.*

6.5.3.2 *Initiative 2 - Serve in a leadership role on the Technical Advisory Committee and State Government Users Group to assure NCDA&CS users have the latest data, tools and resources.   Reduce duplicative efforts and assure local governments benefit from a shared technical knowledge base.*

7 NCDA & CS IT ORGANIZATIONAL STRUCTURE (REPORTING STRUCTURE)

NCDA&CS Information Technology Services Division
August 21, 2014

8 ADDITIONAL AGENCY REQUIREMENTS

8.1 INNOVATIVE FUNDING SOLUTIONS

8.2 OPPORTUNITIES FOR STATEWIDE INITIATIVES

- A statewide approach to grants management would not only solve Agriculture's business problem but other agencies would benefit as well. A grants management system has been discussed for several years at the enterprise level. We believe with the State looking at financials is the first step to this solution.

  In the interim, we need to procure a SaaS solution to manage the nearly 16 million dollars we monitor and oversee in the Department.

Appendix A: List of Major IT Projects

This purpose of this section is to provide list of major IT projects and applications (>$250,000) that are in progress or planned in this biennium. The table below maps each project to overall goals and strategies.

Project Name	Short Description	Related Goals and Objectives	Summary of Anticipated Benefits	Approximate Timeframe
Grants Management	The Department Grant Management System (Web-GT) does not have all the functionality needed to serve all divisions in the Agency.	Goal 4 Objective 4.1	Pre and post award grants management Sub-recipient management Data integration to improve fiscal management with NCAS, including historical information Decrease of long-term costs associated with the management of grants Reduce the probability of human error and facilitate access to grants data Improve capacity of eliminating non-value added efforts to support the tracking and reporting of grant information	June 2015
ECLIPS	The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) Plant Industry Division seeks to implement a	Goal 1 Objective 1.1	The Inspections, Licensing and Permitting Automation Capability Project will reduce paper, reduce processing times, eliminate duplicate data entry, improve data integrity, and provide for on-line service options. Expected benefits from the initial deployment are described below.	June 2017

Project Name	Short Description	Related Goals and Objectives	Summary of Anticipated Benefits	Approximate Timeframe
	Commercial off the Shelf (COTS) Nursery Licensing System allowing Nurseries the ability to manage their licenses and associated payments electronically. Also, Plant Industry Staff should have the ability to manage nursery inspections electronically. This pilot solution will serve the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) Plant Industry Division and be used by the Office of IT Services for evaluation of its potential as a long term solution for all NCDA&CS divisions			
Forest Service Application Portal	One-stop portal for all of Forest Service applications.	Goal 3 Objective 3.1		

Project Name	Short Description	Related Goals and Objectives	Summary of Anticipated Benefits	Approximate Timeframe
Redesign of the Department's public website	Make the department's website more user-friendly and dynamic, improving its ability to deliver information to visitors.	Goal 2 Objective 2.1	Responsive website for any device at any time Dynamic data so information is up-to-the-minute New content management to improve site maintenance and updating of information	January 2016
GIS	Identify where GIS can improve efficiencies in the Department and to our Citizens.	Goal 5	Responsive website for any device at any time. Work collaboratively with other State Agencies.	ongoing

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